Derivatives: Grit, Ingenuity, and Growth

Speech by INABA Kei-Ichiro, Deputy Commissioner for International Affairs, Financial Services Agency, Japan, at the "ISDA Derivatives Trading Forum Tokyo 2026" on October 23, 2026

[Opening remarks]
I'm happy to speak here, and I thank ISDA for the kind invitation.

[Derivatives as a human wisdom]
We can all agree on one thing: the future is uncertain. But uncertainty does not necessarily lead us to a single way of thinking. Two well-known American films suggest opposite ways to deal with this.

In the Coen brothers' No Country for Old Men, the idea that "we cannot know the future" leads to a rather bleak view of the world. If the future is unknowable, the world itself may seem beyond our understanding, and there may be little we can do about it. Forrest Gump, directed by Robert Zemeckis, sees life differently. It begins with exactly the same fact, that none of us can know the future, but reaches a far more positive conclusion: since we do not know what lies ahead, let us do what we can today.

Which perspective do you like? My guess is that most of you would side with Forrest Gump because derivatives are, in a sense, Forrest Gump-style financial instruments. To borrow American economist Frank Knight's definition, derivatives seek to transform an unknowable future, what he called uncertainty, into risk that can be measured and managed. In other words, they provide a way to deal with unknowable futures by converting them into something we can assess, price, and manage. In many ways, this transformation has been one of humanity's enduring pursuits. The well-known story of Thales and the olive presses dates back to the sixth century BCE.

The greater the uncertainty, the stronger our desire becomes to measure and manage risk. Of course, we know we can never do so perfectly. Yet, there is something admirable, even beautiful, about the effort itself. It reflects human grit and ingenuity. Last December, I was invited to the Nikkei Group’s long-standing "Year-end Gathering of Economists." There, a number of business leaders remarked that they had never experienced a period of uncertainty quite like the one they face today. If so, there has never been a time when derivatives are needed more than they are now.

[Derivatives development and economic growth]
So, the question is: are you, and is ISDA, being called upon to meet those needs today? I believe the answer is yes. Given the unique role that derivatives can play, your contribution has never been more important.

At their core, derivatives make risk management possible. They also contribute to price discovery,

often providing information that is not fully reflected in the underlying cash markets. Credit risk offers a good example. A substantial body of academic research suggests that CDS premia contain more timely and informative signals about credit risk than corporate bond spreads. My own research on major Japanese companies also pointed to a similar conclusion (Inaba, 2018).

The value of these functions becomes even clearer in an international context. It is difficult to imagine today's volume of international trade and cross-border financial activity without foreign exchange derivatives. These instruments have enabled companies and investors to manage risks that might otherwise have discouraged economic activity across borders.

But this raises a broader question. By helping market participants manage risk and discover prices, has the development of de*ri*vatives markets actually contributed to economic growth?

To answer this question, it is useful to take a brief detour through a broader body of economic research. For decades, economists have studied the relationship between financial development and economic growth, a field often referred to as the *finance-growth nexus*. A large body of empirical research suggests that financial development supports economic growth. For example, one study covering 40 countries over twenty-two years found that both bank credit and stock market development contribute positively to growth in per capita income, with the contribution of bank credit being particularly significant (Durusu-Ciftci et al., 2017). More recently, attention has shifted to the role of finance in driving innovation and how that relationship evolves at different stages of financial development (Zhu & Kim, 2025).

The picture becomes less clear when we turn specifically to derivatives. Compared with the broader finance-growth literature, relatively few studies have examined the association between the development of derivatives markets and economic growth. My search of the literature uncovered only two recent cross-country empirical studies that found a positive association (Sendeniz-Yüncü et al., 2018; Vo et al., 2020).

[Mind the data gaps]
We should be careful not to draw overly strong conclusions from this. Both studies focus on exchange-traded derivatives rather than OTC derivatives. In my view, exchange-traded and OTC derivatives are complementary, but they are not the same.

The challenge is that, because of data limitations, it is far more difficult for researchers to examine the relationship between OTC derivatives markets and economic growth across countries. As a result, the evidence remains much more limited than many of us would like.

But the absence of evidence should not be mistaken for evidence of absence. What we need is better data and more research. From this perspective, the recent enhancement of Japan's OTC derivatives

reporting framework is very welcome.

In the aftermath of the global financial crisis, the Financial Stability Board and other international standard-setting bodies launched a far-reaching reform agenda for OTC derivatives markets. The objective was straightforward: to make these markets more transparent and more resilient. The reforms were built around four pillars: central clearing, trade reporting, electronic trading, and margin requirements.

Since then, the FSA has built Japan's OTC derivatives regulatory framework around these four pillars. Trade reporting provides a good illustration. In 2023, the FSA published a draft revision of its reporting guidelines and has continued to strengthen the framework since then. The objective has been to bring Japan's reporting regime closer to international standards. Key changes include the adoption of ISO 20022, a substantial expansion of reporting items, and the broader use of global identifiers, including the Legal Entity Identifier, or LEI.

I believe this reform has enhanced the transparency and resilience of Japan's OTC derivatives markets. Importantly, it has the potential to deepen our understanding of interactions within these markets and between them and core financial markets. The reform should also improve international data comparability as similar reforms are implemented in other major jurisdictions. Greater comparability, in turn, may encourage financial economists to undertake more rigorous analysis of the relationship between the development of OTC derivatives markets and economic growth. For financial authorities, the benefits are equally important. Better data and greater comparability should enhance our ability to identify vulnerabilities and assess risks to global financial stability.

This suggests that data gaps across jurisdictions remain an important challenge. No single country can address this on its own. International co-operation therefore remains essential. In this regard, FSA officials, including myself, have repeatedly highlighted this issue in discussions at the Financial Stability Board and other international forums. I would also encourage you to continue working closely with your national authorities in the provision of data.

[Expanding OTC derivatives markets through the development of digital assets]
There is another reason why I believe the FSA's trade reporting system is important: the development of digital assets may require the system to evolve further. I am the representative of the FSA on the LEI Regulatory Oversight Committee. Two of the topics discussed in this committee are the implications of digital assets for regulatory reporting, and the need to ensure that these instruments can be appropriately identified, classified, and monitored within existing reporting frameworks. Looking ahead, digital assets may come to be recognised as a distinct asset class, and a comprehensive international framework for the reporting of OTC derivatives referencing such assets may eventually emerge.

In fact, as you have seen in recent years, the rapid growth of crypto-asset trading has been driven, to a significant extent, by derivatives. This seems to have initially taken the form of exchange-traded derivatives. Derivatives referencing digital assets have the potential to be traded in OTC markets as well. Thus, the regulatory environment is all the more important.

In this regard, Japan starts from a position of strength. The FSA has spent years building a robust legal framework for crypto-assets, and I believe it provides a strong foundation for the next stage of market development. It also positions Japan as an attractive destination for both domestic and international market participants.

Consider a few examples. In 2017, the FSA was a pioneer amongst regulators in introducing a registration system for crypto-asset exchange service providers (then known as virtual currency exchange service providers under Japanese law). Since then, the FSA has continued to strengthen the framework to enhance user protection, promote sound business practices, and address risks arising from the loss or leakage of customer assets. The FSA has also taken important steps in the area of stablecoins. Through the 2023 amendment to the Payment Services Act, Japan became one of the first countries in the world to introduce a comprehensive regulatory framework for fiat-backed stablecoins as a means of payment.

Recent developments in digital assets, however, seem to be calling on you to demonstrate the same ingenuity as those who came before you. Today, we hear a great deal about concepts such as tokenization, smart contracts, and programmable collateral. Taken together, these innovations have the potential to transform the way derivatives markets operate. In time, they could automate an entire chain of processes, from margin calculations and variation margin calls to settlement itself. If that happens, market participants could benefit from lower operational costs, greater efficiency, and reduced settlement risk. That would be a significant gain for everyone involved.

[Whither Japan's payments and settlement ecosystem?]
More broadly, the implications of these innovations go well beyond derivatives markets. They have the potential to reshape the payments and settlement ecosystem as a whole. In the age of AI, the future of payments and settlement systems will depend on whether we can strike the right balance between supporting on-chain finance and building on the strengths of existing financial market infrastructures. People often say that the payments and settlement systems of the future will need to deliver three things: around-the-clock availability, programmability that seamlessly links financial transactions with commercial and logistics processes, and the stability and security needed to function as a trusted financial market infrastructure. Getting this balance right will be key. If Japan fails to do so, its payments and settlement ecosystem could become increasingly dependent on overseas infrastructures. Over time, that could weaken Japan's competitiveness and raise concerns from the perspective of economic security.

Against this backdrop, let me briefly mention one of the FSA's key policy initiatives. In response to *Financial Services Strategy to Promote Growth Investment*, formulated by the government last July, the FSA has launched the "On-Chain Finance Forum for the AI Era" to explore the practical implementation of on-chain finance. At the same time, the FSA will examine topics relating to technology, regulatory framework, and supervision through two study groups: "Study Group on Digital and Decentralized Finance" and "Study Group on the Sound Utilization of AI and Related Technologies." Of course, these discussions will extend well beyond derivatives, and at this stage it is difficult to say how directly they will affect derivatives markets. That said, I hope that you will follow these developments closely and, where appropriate, share your expertise and perspectives as the discussions move forward.

[Concluding remarks]
I would like to close my speech with a statement from this year's policy direction of the FSA, titled *FSA Strategic Priorities: July 2026 – June 2027*:

Senior officials responsible for management are expected not only to build trust within the FSA, but also with professionals across a wide range of industries and financial institutions, as well as officials of other government agencies, overseas authorities, and other relevant organisations. They must possess the ability to formulate and implement policies whilst working together with determination to address challenges that cannot be resolved by the FSA alone.

Listening to today's agenda, it strikes me that this imperative applies directly to the discussions we will have here. It also makes me want to stay for as much of the programme as possible to continue learning from all of you. Thank you very much for your attention.

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